Complete Summary

GUIDELINE TITLE

Angina pectoris.

BIBLIOGRAPHIC SOURCE(S)

Angina pectoris. Philadelphia (PA): Intracorp; 2004. Various p.

GUIDELINE STATUS

This is the current release of the guideline.

All Intracorp guidelines are reviewed annually and updated as necessary, but no less frequently than every 2 years. This guideline is effective from January 1, 2004 to January 1, 2006.

COMPLETE SUMMARY CONTENT

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METHODOLOGY - including Rating Scheme and Cost Analysis
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INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES
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SCOPE

DISEASE/CONDITION(S)

Angina pectoris, including

- Stable angina
- Unstable angina
- Prinzmetal´s variant angina

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Treatment

CLINICAL SPECIALTY

Cardiology
Emergency Medicine
Family Practice
Internal Medicine
Thoracic Surgery

INTENDED USERS

Allied Health Personnel
Health Care Providers
Health Plans
Hospitals
Managed Care Organizations
Utilization Management

GUIDELINE OBJECTIVE(S)

To present recommendations for the diagnosis, treatment, and management of angina pectoris that will assist medical management leaders to make appropriate benefit coverage determinations

TARGET POPULATION

Individuals with angina pectoris

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis/Evaluation

1. Physical examination and assessment of signs and symptoms
2. Diagnostic tests:
    - Electrocardiogram (ECG)
    - ECG with thallium
    - Echocardiogram (ECHO)
    - Cardiac catheterization

Treatment/Management

1. Medical and behavioral therapy
    - Nitrates
    - Treatment of hypercholesterolemia (exercise, low-fat diet, medication)
    - Smoking cessation
    - Aspirin
    - Beta-blockers
    - Calcium channel blockers
2. Invasive therapies
    - Percutaneous transluminal coronary angioplasty (PTCA)
    - Atherectomy
    - Stent placement

- Coronary artery bypass grafting (CABG)

MAJOR OUTCOMES CONSIDERED

- Treatment efficacy
  - Symptoms
  - Survival
  - Incidence of reblockage
  - Risk of myocardial infarction
  - Incidence of repeat coronary revascularization or other treatment
- Side effects of treatment

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Searches were performed of the following resources: reviews by independent medical technology assessment vendors (such as the Cochrane Library, HAYES); PubMed; MD Consult; the Centers for Disease Control and Prevention (CDC); the U.S. Food and Drug Administration (FDA); professional society position statements and recommended guidelines; peer reviewed medical and technology publications and journals; medical journals by specialty; National Library of Medicine; Agency for Healthcare Research and Quality; Centers for Medicare and Medicaid Services; and Federal and State Jurisdictional mandates.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Not Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not stated

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus (Delphi)

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

A draft Clinical Resource Tool (CRT or guideline) is prepared by a primary researcher and presented to the Medical Technology Assessment Committee.

The Medical Technology Assessment Committee is the governing body for the assessment of emerging and evolving technology. The Committee is comprised of a Medical Technology Assessment Medical Director, the Benefit and Coverage Medical Director, CIGNA Pharmacy, physicians from across the enterprise, the Clinical Resource Unit staff, Legal Department, Operations, and Quality.

Revisions are suggested and considered. A vote is taken for acceptance or denial of the CRT.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Comparison with Guidelines from Other Groups
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

<u>Diagnostic Confirmation</u>

Subjective Findings

- Stable angina (AP)
    - Chest pain/discomfort with exertion, emotional stress, or meals

        - Neck, dental, back, arm pain (atypical)
        - Symptoms relieved by rest and/or antianginal medications
- Unstable angina (USA)
    - Precordial chest pain occurring at rest or in crescendo pattern
    - Pain is unrelieved effectively by nitrates
    - Change in a previously stable anginal pattern
    - May be accompanied by
        - Nausea
        - Jaw or neck pain
        - Arm pain
        - Sweating
        - Palpitations
        - Shortness of breath
        - Lightheadedness
        - Anxiety

Objective Findings

- Diaphoresis
- Tachycardia
- Cardiac auscultation is typically normal, but may be remarkable for nonspecific findings such as an S4, especially in hypertensive patients; flow murmurs, or even pathologic murmurs, may be heard in patients with coexisting valvular disease.
- Drop in blood pressure
- Slight S-T segment elevation on electrocardiogram (ECG)

Diagnostic Tests

- ECG - for symptoms consistent with ischemia or prior infarct and to confirm diagnosis of angina
- ECG - with thallium; stress testing for the presence of a reversible defect is an important predictor of future cardiac events
- Echocardiogram (ECHO) - to observe dynamic chamber wall motion
    - Vasodilator perfusion study (persantine)
    - Pharmacologic stress (dobutamine)
- Cardiac catheterization (see the Intracorp guideline Cardiac Catheterization)
    - Abnormal stenoses on cardiac catheterization
    - Coronary angiography provides data for determination of anti-ischemic therapy.

Differential Diagnosis

- Reflux esophagitis
- Anxiety states (See the Intracorp guideline Generalized Anxiety Disorder)
- Mitral valve prolapse (See the Intracorp guidelines Mitral Stenosis and Mitral Regurgitation)
- Dissecting aneurysm (See the Intracorp guidelines Abdominal and Thoracic Aortic Aneurysm)
- Pulmonary embolism (See the Intracorp guideline Pulmonary Embolism/Infarction)
- Acute pericarditis (See the Intracorp guideline Pericarditis)

- Pneumothorax
- Mediastinal emphysema
- Acute pancreatitis (see the Intracorp guideline Pancreatitis)
- Acute cholecystitis
- Peptic disease (see the Intracorp guideline Peptic Ulcer Disease)
- Perforated ulcer
- Pleuritis
- Rib fracture (see the Intracorp guideline Rib Fractures)
- Gastroesophageal reflux disease (see the Intracorp guideline Gastroesophageal Reflux Disease [GERD])

Treatment Options

- Medical management to ameliorate symptoms and improve exercise tolerance; prognosis with medical management is similar to surgery unless there is left main or triple vessel disease with a ventricular ejection fraction <50 %.
    - Nitrates remain the first-line therapy for angina and are available in various preparations, including fast acting sublingual nitroglycerin; the use of longer acting preparations may lead to toxic levels.
    - Treat hypercholesterolemia (increased exercise, low-fat diet, medication).
    - Smoking cessation
    - Aspirin: a widely used anti-inflammatory and antiplatelet agent that has become the standard of care for patients with coronary artery disease (CAD); its use may reduce the risk of myocardial infarction by 40% in patients with preexisting disease.
    - Beta-blockers are safe and widely used antianginals with an excellent track record in the management of patients with CAD. Unfortunately, they fail in 20 % of CAD cases, and can be contraindicated in patients with chronic obstructive pulmonary disease (COPD), diabetes, or asthma comorbidities. They are frequently associated with undesirable side-effects such as depression, impotence or libido changes, fatigue, and exercise intolerance
    - Calcium channel blockers are well-tolerated and effective antianginals, but a recent controversy regarding the potential risk of increased mortality with their use in patients suffering from CAD has yet to be resolved.
- Invasive therapies
    - Percutaneous transluminal coronary angioplasty (PTCA): PTCA is a technique that employs heart catheterization to guide balloon dilatation of a stenosed coronary artery, thereby restoring blood flow to a region of ischemic myocardium; PTCA improves symptoms but is not always able to prolong survival; restenosis of the affected vessels is a major problem inherent to PTCA occurring in 20 to 25% of patients (see the Intracorp guideline PTCA for indications).
    - Atherectomy
    - Stent placement
        - Drug-eluting coronary artery stents are likely to have a substantial impact on the incidence of reblockage in patients who undergo angioplasty; preliminary study results indicate that, compared with an uncoated metal stent, the sirolimus-

eluting stent significantly reduces the likelihood of reblockage of the artery, consequently reduces the need for repeat coronary revascularization or other treatment, and improves event-free survival. These positive findings persisted for up to 1 to 2 years, and clinical trials with longer follow up are ongoing. Early studies suggest that paclitaxel-eluting stents confer similar benefits for treating coronary artery disease.

- Coronary artery bypass grafting (CABG): surgery is considered optimal therapy for left main artery disease or triple vessel disease with left ventricular dysfunction and has dramatic benefits in diabetic patients with CAD (see the Intracorp guideline Coronary Artery Bypass Grafting)

Duration of Medical Treatment

- Medical - optimal: 90 day(s); maximal: 450 day(s)

Additional provider information regarding primary care visit schedules, referral options, and specialty care are provided in the original guideline document.

The original guideline document also provides a list of red flags that may affect disability duration, and return to work goals, including

- Resolving chest pain
- Resolving symptoms of coronary heart failure
- Resolving arrhythmia
- After hospitalization for PTCA

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Overall Benefits

Appropriate diagnosis, treatment, and management of angina pectoris (AP) that assist medical management leaders in making appropriate benefit coverage determinations

Specific Benefits

- The use of aspirin may reduce the risk of myocardial infarction by 40% in patients with preexisting disease.
- Preliminary study results indicate that, compared with an uncoated metal stent, the sirolimus-eluting stent significantly reduces the likelihood of reblockage of the artery, consequently reduces the need for repeat coronary revascularization or other treatment, and improves event-free survival. These positive findings persisted for up to 1 to 2 years, and clinical trials with longer follow up are ongoing. Early studies suggest that paclitaxel-eluting stents confer similar benefits for treating coronary artery disease.
- Coronary artery bypass grafting is associated with dramatic benefits in diabetic patients with coronary artery disease.

POTENTIAL HARMS

- Beta-blockers are frequently associated with undesirable side effects such as depression, impotence or libido changes, fatigue, and exercise intolerance.
- Calcium channel blockers are well-tolerated and effective antianginals, but a recent controversy regarding the potential risk of increased mortality with their use in patients suffering from coronary artery disease has yet to be resolved.
- Percutaneous transluminal coronary angioplasty (PTCA) improves symptoms but is not always able to prolong survival; restenosis of the affected vessels is a major problem inherent to PTCA occurring in 20 to 25% of patients

CONTRAINDICATIONS

CONTRAINDICATIONS

Beta-blockers can be contraindicated in patients with coronary artery disease with chronic obstructive pulmonary disease, diabetes, or asthma comorbidities.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Angina pectoris. Philadelphia (PA): Intracorp; 2004. Various p.

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1997 (revised 2004)

GUIDELINE DEVELOPER(S)

Intracorp - Public For Profit Organization

SOURCE(S) OF FUNDING

Intracorp

GUIDELINE COMMITTEE

CIGNA Clinical Resources Unit (CRU)
Medical Technology Assessment Committee (MTAC)

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Voting Committee Members: James Rollins, MD, Medical Director of the Technology Assessment Committee; Razia Hashmi, MD, VP Coverage and Policy and Medical Director of the Clinical Resource Unit (CRU); Janet Mauer, MD, Medical Director of the LIFESOURCE Transplant Unit; Jim Small, MD, Medical Director of Intracorp Disability; Christina Stasiuk, DO, Associate Medical Director, Intracorp; Andrea Gelzer, MD, Senior Medical Director, Tri-State; Nicholas Gettas, MD, Senior Medical Executive, Atlantic UB; Steve Halpern, MD,CIGNA Appeals; Robert Hoover, MD, Medical Operations Review Director; Karen Lachaux, RPh, Director, Drug Policy; John Poniatowski, RPh, AVP CIGNA Pharmacy; John Rausch, MD, Associate Medical Director; Douglas Nemecek, MD, AVP of CIGNA Behavioral Health

Non-voting Committee Members: Jeff Linstone, Esq., CIGNA Legal; Nancy Richmond, RN, AVP of Utilization Operations, Quality & Compliance; Mary Deary-Weiss, RN, Director of Utilization Programs-CIGNA; Nancy Althouse, RN, Clinical Resource Unit; Regina Barnett, RN, Clinical Resource Unit; Patricia Bittner, Intracorp Disability and Clinical Resource Unit; Kelly Bonner, RN, Clinical Resource Unit; Kathleen Boudreau, RN, Clinical Resource Unit; Lisa Bowman, RN, Intracorp Disability Manager; Patricia Crose, RN, Clinical Resource Unit; Pam Weber, RN, Clinical Resource Unit; Mary Smith, LPN, Clinical Resource Unit; Cate Landers, LPN, Clinical Resource Unit

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

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GUIDELINE AVAILABILITY

Electronic copies: Intracorp guidelines are available for a licensing fee via a password protected, secure Web site at www.intracorp.com.

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Policies and procedures. Medical Technology Assessment Committee Review Process. Philadelphia (PA): Intracorp; 2004. 4 p.

Print copies: Available from Intracorp, 523 Plymouth Road, Plymouth Meeting, PA, 19462; Phone: (610) 834-0160

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on November 22, 2004. The information was verified by the guideline developer on December 8, 2004.

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